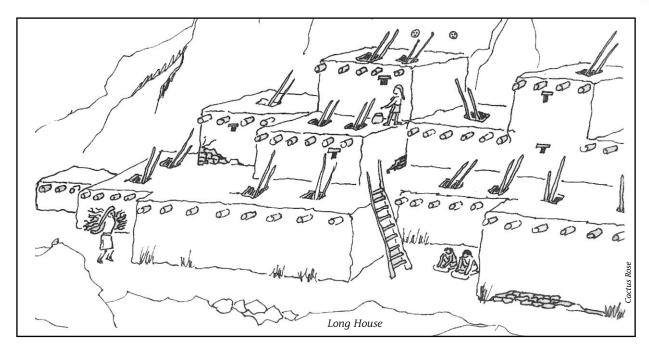
PUEBLO PEOPLE PAST & PRESENT





About a million years ago, a huge volcano erupted near Bandelier National Monument. Volcanic ash covered the land hundreds of feet thick. Thousands of years ago, hunters and gatherers began living here. Then about 900 years ago, Ancestral Pueblo people came. They lived in the canyons and on the mesas. They made homes and gardens. About 450 years ago they moved away but they didn't go very far. Today their relatives live in pueblos nearby.

This newspaper lets you see into the lives of the Ancestral Pueblo people. They lived here a long time ago. But they are not strangers. You may have friends who are part of their family. Someday you may meet a Pueblo artist. Maybe he speaks the same language they spoke then. You might meet a Pueblo potter. Maybe she uses the same designs they used then. Or you might go to a pueblo on a feast day. The dances and songs are the ones they used then. We hope you will enjoy learning about the Ancestral Pueblo people. We hope you will like finding connections between long ago and now.

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What is Bandelier National Monument?

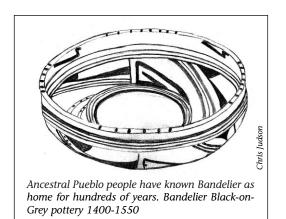
hese articles will tell you a lot about the people who lived at Bandelier National Monument. But what is Bandelier?

Bandelier is an area in the mountains near Los Alamos, New Mexico. In the park archeologists tell us that there are at least 3,000 sites where Ancestral Pueblo people used to live. Way back in 1916, people thought it was important to protect those sites. They made a law that the area would be a National Monument. That means that it belongs to everyone in the United States. It means that no one can steal or destroy things here. It will always be a place to come to learn and enjoy.



Bandelier National Monument is one of many National Park sites throughout the United States. The National Park Service protects special places so that people from all over the world can enjoy these unique treasures.

In 1880 a man named Adolph Francis Alphonse Bandelier came to New Mexico to learn all about the Pueblo people. He went to Cochiti Pueblo, between Santa Fe and Albuquerque. The Cochiti people took him to see where their ancestors used to live. It was a long hard hike to Frijoles Canyon. He thought it was very interesting and exciting.



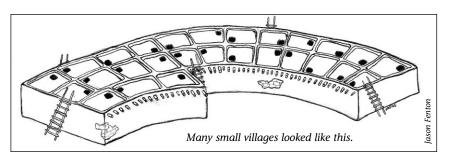
He said it was "the grandest thing I ever saw." Later he wrote a book about the Pueblo people who lived there. When the land all around Frijoles Canyon became a park, it was named for Adolph Bandelier.



of the National Park Service.

Now a road goes to the park. More than 300,000 people visit every year. There is a campground, and more than 70 miles of trails for hiking. The visitor center in Frijoles Canyon has a museum about the Pueblo people. Many kinds of animals, birds,

and plants live on the mesas and in the canyons. The National Park Service manages Bandelier National Monument. Rangers take care of the park and help people learn about it. If all the visitors follow the rules, the park will stay exciting and interesting for a long, long time.



Pueblo People Today



ueblo people believe that with the help of different animals, we came up from a world below this one. The people then went on a long journey to find their homeland. As they walked they found many different landscapes. Some were cold and had ice and snow. Others were dry and hot. But the place they settled had a little of all the places they visited. The people were told to make the area we know as the Southwestern United States their home. So my people began to make homes on the mesas and in the canyons. Bandelier is only one of many Ancestral Pueblo areas.

When the people left Bandelier they moved to various pueblos. We know this because the people still live in these places. The different dances, songs, stories and languages are still

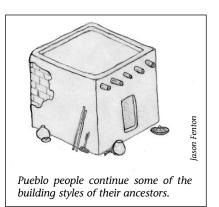
carried on today. The people still remember their ancestors. In New Mexico, there are nineteen pueblos. Among these pueblos, there are 5 languages spoken. They are Tiwa, Tewa, Towa, Keres and Zuni. Many Pueblo people today are related to the people who lived in Bandelier. These pueblos include Cochiti, San Ildefonso, Santa Clara, San Felipe, Santo Domingo, and Zuni. Bandelier is a very special place to the Pueblo people. We ask everyone to treat it with respect and care.

"Bandelier is important to me because my people lived here. I always feel like I am going home. It is a place to get in touch with the old ones. It is a place to connect with my ancestors. You can feel the spirits all around you. I think it is important to keep your ears open. To learn to listen to the old ones. I think that we as Pueblo people need to be willing to say, 'I am!' I am young and I am the next generation and we will continue the ways of our ancestors."

-Carlos Herrera, Cochiti Pueblo



There are nineteen pueblos in New Mexico. Many are located along the Rio Grande. The pueblos still continue the traditions of the Ancestral Pueblo people. Have you visited any of the pueblos? Have you been to any of the pueblo dances?



Pueblo people continue many of the things our ancestors taught us. Languages, songs, dances, stories, and ceremonies continue in the pueblos today. Knowledge of the native plants, growing crops and using the gifts of nature are still passed on to the younger people. Pottery is still made in the traditional way. Although Bandelier is not like it used to be in the 1200s, it is still important to the Pueblo people of today.

-Park Ranger Cecilia Shields Picuris Pueblo





Speaking with Respect and Understanding

I grew up in a small pueblo. I am still learning the stories of my ancestors. As a Park Ranger at Bandelier National Monument, I feel connected to the ancient dwellings here. From all over the world people come and visit these special places. They come to learn and explore this beautiful place.

Thinking about the past, I think about

how I am connected to these places. The people who lived here are my ancestors. We remember them and their ways. My grandmother told me many stories. She also taught me to make pottery. My mother taught me to make traditional foods. And my aunt taught me how to grind plants for medicine.

I love Bandelier. This place is very special to me. When I first came to Bandelier to work, my dad told me about the sites. He said that these are places that are to be respected. He said that a lot of people call them "ruins," but to Pueblo people they are not

ruins. He says the old ones are still here. So I don't call them "ruins," I call them archeological sites, structures or dwellings. I don't say they are "abandoned."

I learned a lot from my dad. I learned about how life was when he was young. I think that it is really amazing how smart our ancestors were. They built their homes to stand strong against rain and wind. They grew crops where there was not much water and they knew a lot about the movement of the sun, the moon and the stars. So when people use the word "primitive" or "prehistoric," I don't think that is very true. I think they were very smart people.

One of my jobs as a Park Rager is to give guided walks along the Main Loop Trail. Sometimes I talk with two people, other times I talk with as many as 60 people! I talk about the Ancestral Pueblo people and how they lived. I

talk about how the people used the rocks and the plants. And I talk about how the Ancestral Pueblo people did not "disappear" or "vanish." We know where they went.

Well, oral tradition tells us that there were no longer enough resources for the people to survive. So they moved. Taking only what they could carry, they moved to the different Pueblos

> of today. The people of Frijoles Canyon moved to Cochiti Pueblo. And their descendants are still there.

When I give guided walks, people ask many questions. One of them is, "Were these the Anasazi?" And I say, "Yes. but that we don't use that term here at Bandelier." The reason is that Anasazi comes from a Navajo word meaning "ancient enemies." For a long time archeologists have used Anasazi to talk about the people who lived here long ago. I am a Park Ranger and I am from a Pueblo. I feel really weird calling

I am from a Pueblo. I feel really weird calling my own ancestors "ancient enemies," because they are not my enemies, they are my elders, my grandparents and my teachers. So when I talk about the people who lived in Bandelier and throughout the Southwest, I call them "Ancestral Pueblo people." I do this because it is more respectful.

Words are very important to Pueblo people, past and present. They are very powerful. I am happy to be part of this culture. I have always been taught to respect these special places and I hope you will too. I hope you will learn many new things. And I hope that you will share them with others.

-Park Ranger Cecilia Shields Picuris Pueblo



This is a drawing by 7-year-old Lorenzen Gonzales from San Ildefonso Pueblo. He is very interested in learning about his ancestors and about how they lived. Lorenzen loves to make abstract drawings. His mother, Melanie, paints designs on her pottery. Many of the symbols are passed on from Ancestral Pueblo people. They represent clouds, feathers, and lightning.

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Learning About People in the Past



Think about your own house. What if an archeologist of the future didn't know anything about the games we play today. What would she think if she found a pair of dice in what used to be your room? Maybe she would guess that it was for a game. But she could also guess that those little white cubes with dots were used to tell time. Or maybe she would think they were for a healing ritual for someone who was sick. To understand something, you need to know about the life of the person who used it. Otherwise you might end up making wild guesses.

rcheologists are scientists who have an interesting job. They ask questions about how people lived in the past. Even people hundreds or thousands of years ago.

Some questions are easy to answer. What did

people eat? Did they make tools out of stone or wood? Did they live with lots of other people in big cities? An archeologist might answer questions like this by finding things. She might find the remains of a cooking fire, or old tools, or the walls of an old town.

Other questions are harder to answer. What did it sound like when they spoke to each other? What stories did they tell? What did they think

about when they looked at the stars, or when they saw a special animal like a bear or an eagle?

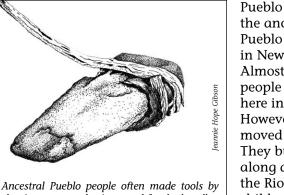
To solve these mysteries of the past, archeologists need to look for clues. Some clues are objects that archeologists find when they explore an ancient town or home. In that case, the clues are called artifacts. An artifact can be something like a big stone that was used for grinding corn. It could be a piece of wood that held up the roof of a house. Or it could be a cooking pot, or an arrowhead.

A good archeologist can learn a lot from an artifact. Maybe she finds a knife that was made out of a sharp stone. She can look closely at the edge under a microscope and tell if the knife was used to cut plants or to cut meat.

Sometimes she can even tell if the person who used it was right-handed or left-handed! Archeologists can learn a lot from old things. But all by itself, an artifact cannot tell her everything.

The people who once lived in Bandelier are

called the Ancestral Pueblo people. They are the ancestors of the Pueblo people who live in New Mexico today. Almost 500 years ago people left the old towns here in Bandelier. However, they only moved a few miles away. They built new homes along a big river called the Rio Grande. Their children lived there. The children of those children lived there. Through



shaping stone and using wood for the handle.

many generations the people have been living in the same towns on the banks of the Rio Grande. They remember a lot about what life was like in the old times. Pueblo people today still do things that their ancestors did many centuries ago.

The elders tell stories to the children. When those children become parents, they tell the same stories to their children. Pueblo people speak their traditional language and continue the ceremonies of their ancestors. These things are important for keeping their culture alive.

Maybe a wise old grandmother today makes a beautiful clay pot. She paints a design on it, and recognizes that same design on a pot from





Learning About People in the Past (continued)



Try to imagine who made this beautiful bowl and what the design means. Many types of designs were painted on pottery using paintbrushes made from yucca. Ancestral Pueblo Bowl, 1315-1425

long ago. Maybe a Pueblo man plants beans in a field. To help them grow he might say the same prayer that his great-great-grandfather said. An archeologist can learn a lot from the stories, memories and knowledge of Pueblo people. If she finds a big flat rock, she knows it was used for grinding corn. She learns that Pueblo people today remember how it was used. In fact, on certain special days, such as Feast Days, they still grind corn. And if the archeologist finds a big, circle-shaped room built down into the earth, she knows it is a kiva (KEE-vah). A kiva is a sacred place for gathering and learning. Kivas are still very important to the Pueblo people today.



Pueblo people continue to carry on the traditions of their ancestors such as the Buffalo Dance. It is a dance to honor the animals. Archeologists also learn from the Pueblo people today.

Bandelier has very old villages and cliff dwellings. You would enjoy walking there. What can you do to help preserve these special places? You might see the walls of an ancient home. They would crumble if someone walks on top of them. You will see the walls of an old cave room. It would be disrespectful for someone to carve their name or other graffiti there. Be sure you don't do those things yourself. Stay on the trail as you walk and you'll know that you aren't damaging the old dwellings. Only climb where there are ladders. Don't scratch the cliffs or cave walls.

You can take good care of these fragile places and enjoy exploring too. If you see somebody climbing an ancient wall or carving graffiti into the rock, tell them to stop! Pueblo people care about the caves and villages where their ancestors lived. They ask park visitors to treat them with respect. It is a good feeling when you know you have done your part.

Volcanoes, Axes, and Arrowheads



The Ancestral Pueblo people of Bandelier were always in contact with nature. In their daily lives this showed up in their ceremonies and what they ate. It was in the work they did. And it was part of how they used the many kinds of rocks available to them.

andelier is on the slopes of a very big volcano called the Valles Caldera (VY-yays call-DARE-uh). The volcano is so large that the bumps around its rim are the size of mountains! People call them the Jemez (HAY-mess) Mountains. Many kinds of rock erupted from this volcano. These rocks

really helped the Ancestral Pueblo people. They built their houses from volcanic rocks. They farmed on volcanic soil and had sharp volcanic stone points on their weapons. Archeologists call things made from stone "lithics." The early people of Bandelier used a lot of lithics.

When the volcano erupted, flows of volcanic ash covered everything around it. These layers were

hundreds of feet deep. The ash rock is called tuff. If you visit Bandelier, you will see that the Ancestral Pueblo people used tuff to build their homes. There are small natural caves in the tuff cliffs. The people enlarged them to make rooms. Along the base of the cliffs is a slope of loose chunks of tuff. The people shaped these stones to make bricks for their house walls.

The last time the volcano erupted, clouds of light, "frothy" lava came out. This kind of rock is called pumice. It traveled through the air and covered wide areas of land. Rain and snow washed a lot of it away. But in some places it still covers big areas on the tops of the mesas. The Ancestral Pueblo people discovered those are good places to farm. When it rains, the

water soaks into the pumice layer. Plants have a better chance to grow.

In some places the tuff cooled slowly. It formed welded tuff. Welded tuff is harder and denser than the tuff the people used to build their homes. So they used pieces to cover the doors in the roofs of their houses. and also used it for the hearth stones by their fires.

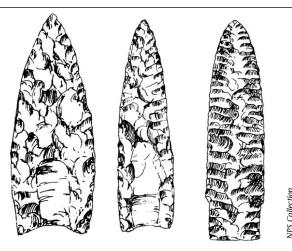
The Ancestral Pueblo people had no metal. But they could make good weapons from stone. At first, they used a smooth, hard volcanic rock called basalt (buh-SALT). It made sharp points for arrows and spears. They didn't have to walk too far to get this kind of basalt. But it is hard to make basalt into really sharp weapons. The people found other kinds of stone they liked

> better. Their favorite was obsidian.

Obsidian is volcanic glass. It looks like regular glass, except it is usually black. It is a kind of lava that cools very quickly. The people had to walk much farther to get obsidian instead of basalt but it was worth it. Like glass, obsidian can be chipped to have a very thin, sharp edge. It is very good for making knives, scrapers, spearpoints, and

arrowheads. People walked from far away to trade for the good obsidian from the Iemez Mountains.

Sometimes they used another rock, called Pedernal (PAY-der-nall) Chert, for points or knives. The pieces washed down the Rio Grande, from a mountain called Cerro Pedernal. It is over thirty miles away! Chert is colorful, often being white with red specks. It makes sharp, nice-looking tools. But not much was available, so obsidian was used more often.



Examples of spear points made of basalt and obsidian. Ancestral Pueblo people were skilled at working with the different stones available to them.

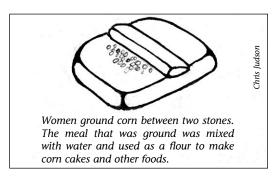


Volcanoes, Axes, and Arrowheads (Continued)



Obsidian and chert are very good for sharp tools, but they are brittle. Tools like hammers and axes had to be made of something that wouldn't shatter. Just down the canyon from Tyuonyi the

people found another kind of basalt. It isn't good for sharp edges, but it is strong and durable. They used this kind of basalt for



grinding corn. In Spanish these tools are manos and metates (MAH-nose and may-TAH-tays.) This basalt was good for other heavyduty tools too, like hammers.

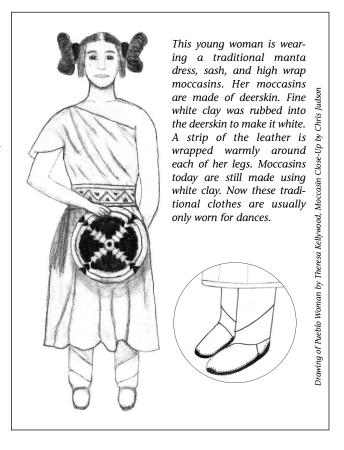
Sometimes they found big pebbles of granite in the Rio Grande. Granite is very hard and strong. The pebbles had washed down from the Sangre de Cristo Mountains, many miles away.

The people also used stones for jewelry, paint, pottery, and trade. Turquoise is a beautiful blue stone. People today still use it to make jewelry.



The Ancestral Pueblo people at Bandelier got it by trade. It came from mines near the present town of Cerrillos, south of Santa Fe. For clay, every potter knew her favorite place to find just the right kind. They used colored clays for painting pottery and drawing pictographs. They also used them for body paint for the dancers during ceremonies. They

rubbed fine white clay into deerskin to make the women's high white moccasins.



The Ancestral Pueblo people depended on the land for everything they needed. They knew where to find many kinds of stones and they knew how to use them. When you visit Bandelier you can see the caves, houses, weapons, and tools they made. Pueblo people still use stones today.

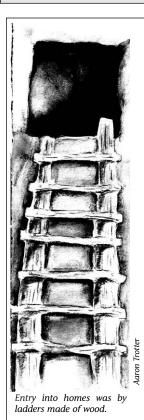




Building Homes in Frijoles Canyon



Ancestral Pueblo people in Bandelier built their homes of stone. Bandelier is on the slopes of a huge volcano. It erupted over a million years ago and covered the land for miles around with volcanic ash. The ash became soft rock called tuff. Ancestral Pueblo people settled there thousands of years later. They used the tuff to build their homes. They didn't have bulldozers, cranes, or electric drills for building. In fact, the Ancestral Pueblo people didn't have electricity, motors, or even metal. Work was all done by hand using strong tools made of stone, wood, and animal bones.



o build their homes, there were pieces of tuff at the base of the cliffs. The people cut these pieces to the right size for bricks. Then they used the stone bricks to build their houses. First they stacked the bricks to form walls, then used mud mortar to hold them together. Roofs were made of long pine logs, branches, and mud. Walls were then coated with mud plaster. The houses were square, with a flat roof. Many houses in New Mexico today look like that. Some houses were built in the bottom of the canyon. Others were along the base of the cliffs, and some of

them had small caves for back rooms. There were also rooms which were kivas (KEE-vahs).

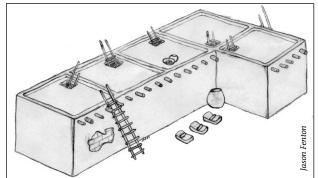
Kivas

A kiva is a special place to Pueblo people. It is a sacred place for gathering and learning. Kivas are still very important to Pueblo people today.

Most kivas were round and built underground. To go in you used a ladder through a hole in the middle of the flat roof. The smoke also went out through that hole. Roof beams made

from tree trunks held up the roof. Branches from aspen and cottonwood trees went over the beams. Then there was a layer of mats. On the top was a thick layer of mud. In the kiva a small fire made heat and light. They made a ventilator shaft to bring in fresh air. It looks like a chimney, but air came in instead of smoke going out.

Usually kiva floors were plastered smooth with clay. Many have a hole carved into the floor. In Frijoles Canyon people spoke the Keres (CAREayz) language. In Keres the hole is called a shipahp (She-PAH-p). It is a symbol of the

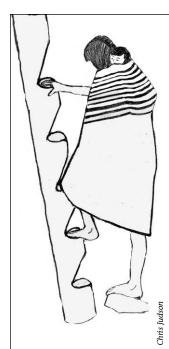


This is an example of an Ancestral Pueblo home. Entry was often through the roof and then down a ladder. Walls were plastered with mud. Wood beams supported the roof. Many villages stood two or three stories high!

Pueblo creation story. Many Pueblo groups tell that, long ago, they came up from an underworld. They came up through the shipahp. In this world they were told to migrate until they found the "center place." It would be the place that was just right for them to live.

Building Homes in Frijoles Canyon (Continued)





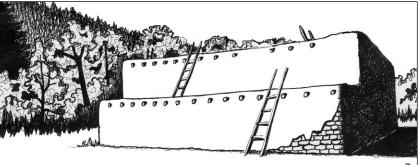
Ladders were made in different styles. This one was made by carving notches into a wooden pole. Women often wrapped small children in warm cotton blankets and tied them to their backs to do daily chores and also to climb up ladders to their homes.

Villages With Plazas

On the bottom of Frijoles Canyon is an old village, Tyuonyi (Qū-weh-nēē). Many houses were built next to each other with an open space, called a plaza, in the middle. The house walls were tuff bricks. They were covered with plaster. The roofs were made of strong wooden beams, just like the kiva roof. Tyuonyi had about 400 rooms. It was one to two stories tall, maybe three in some places. People went into the rooms by ladders through the roofs. We don't know if they had any enemies. But it looks like

they built their village for defense. If there was danger, they would need to protect their families. Tyuonyi has no doors or windows in the outside walls or first floor rooms. There

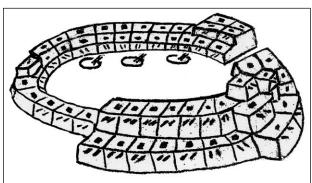
was only one way to get into the village. It was a small opening with a narrow hall. Maybe if there was trouble, the people could keep enemies out by removing the ladders and blocking the little opening.



Ancestral Pueblo people didn't have grocery stores like we do today. People had to be very careful with food. Most of the pueblo structures had rooms that were used for storage. Crops, seeds, dried meat, water and other things were stored in the bottom level rooms. They were very dark and dry and kept things stored very well for months, even years!

to houses now. Many were about six feet wide and eight feet long. But most people were only a little over five feet tall. That's shorter than many people today. They didn't have big pieces of furniture to take up space, either. And each family could have as many rooms as they were willing to do the work to build.

Most rooms didn't have windows. They didn't have glass, so windows would have just been openings in the wall. That would be cold in the winter! So usually it was pretty dark and smoky inside. Probably people spent time outside whenever they could.



An artist's idea of what Tyuonyi looked like. Notice there is only one entrance to the village. Maybe it was for defense. It also marks December 21, the winter solstice. On that day, the shortest day of the year, the rising sun lines up directly with the entry.

People often spent time in the plaza. There would be lots of things going on. Children

would be playing. Women would be making pottery. Girls would carry water from the creek. Men would bring crops from the gardens. Boys would run by on their way to hunt rabbits. Good

smells from cooking would make you hungry. In Tyuonyi there were three kivas in the plaza. Maybe you would hear people singing in the kivas.



Some of the rooms were for living and others were for storage. They needed to store lots of dried corn, beans, and squash to have for the winter. Rooms for living seem small compared

Building Homes in Frijoles Canyon (Continued)



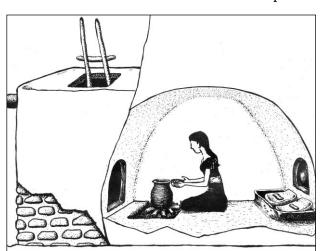
Cavates

If you visit Frijoles Canyon, you will notice small, odd-shaped holes in the canyon walls. They were formed by wind, rain, and frost. Then you will see ones that look like they were shaped. They have flat floors and door-shaped openings. You may even notice soot on the ceilings and plaster on the walls. This tells you that these are cavates (cave-EIGHTS). The Ancestral Pueblo people dug these holes in the cliff for living and storage. Cavates are not very big. Many are only about five feet wide and five feet tall. Often the people covered the walls with mud plaster. Sometimes they painted designs on the walls. If there was a fire, the smoke would make soot on the cave ceiling. The plaster and the soot would help keep the tuff walls from crumbling onto people. Usually a cavate wasn't used by itself. The people built a house in front, and the cavate was the back room.

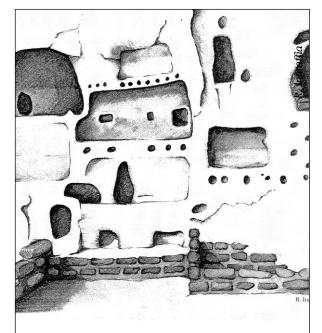
Talus Houses

The loose rock at the base of a cliff is called talus (TAL-luss). So the houses built along the cliffs are called talus houses. Sometimes they are called cliff dwellings. They have cavates for back rooms. Talus houses blend in with the cliffs. Their stone walls look like they have always been there.

Talus houses were built like kivas and Tyuonyi. The walls were stone bricks. The roof was pine



Cavates usually were not the whole house. Usually the cavate was a back room. The people built stone rooms along the cliff to be the rest of the house. You went through the stone rooms to get to the cavate room. It would be a nice place to grind corn or to make a good hot meal.



There are many cavates in Frijoles Canyon. Along the cliff are lines of holes. They show where the roof beams used to be. Can you tell how many stories this area was by looking at the roof-beam holes?

Answer: Three stories tall.

beams, branches, and mud. People went into the house by a ladder in the roof. Maybe there was a cavate for a back room.

Along one cliff in Frijoles Canyon, the people built many talus houses next to each other. The group of houses is 800 feet long! That is a long line of houses. So it is called Long House.

Good Homes

Maybe you wonder whether it was better to live in the cliff dwellings, or in Tyuonyi on the canyon bottom? Tyuonyi is closer to the creek and the corn fields in the canyon. That would be nice for getting water. In summer it would be easy to get to your garden. But living in the talus houses would be nice in winter. They are on the south-facing side of the canyon. That is the good place for sunlight. On short winter days the sun shines on those houses in the afternoon. Every winter day they had sunshine for more than an hour longer than the houses in Tyuonyi. So maybe the talus houses would be the place to be on winter days. You could sit on your roof in the sun longer. But at dark everyone in both places had to go indoors for the long cold night. Inside there were warm fires. Winter was the time for telling stories.



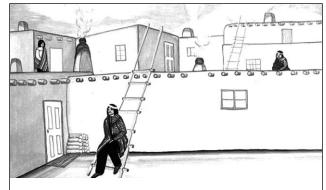


Building Homes in Frijoles Canyon (Continued)

So both kinds of homes had advantages and disadvantages. Everybody was living in a good place.

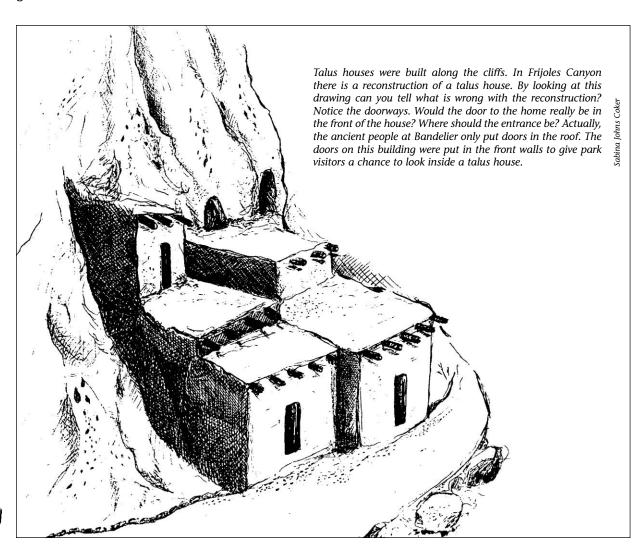
All the Ancestral Pueblo houses were strong. They were warm in the winter and cool in the summer. Do you think you would like to live in one of the stone houses in those days? The rooms were smaller than the ones in your house. They didn't have electricity, faucets, refrigerators, or video games. But they kept you dry when it rained or snowed. You would be proud because you helped build the house. Your family was close all around you. Grandparents told stories. Food was stored so you wouldn't be hungry even in the winter.

Imagine being there on a dark, windy night. Good stone houses are all along the canyon wall, and in the big circle of Tyuonyi. Families gather inside their homes. Your fire is warm



Pablita Velarde painted this pueblo scene in the 1940s. Many pueblo houses still look like ones long ago.

and bright. The cooking food smells so good! Soon it will be time for bed. Tucked in your turkey-feather blanket, cozy and secure, you drift into pleasant dreams.



Making a Living





People around Bandelier grew cotton. The men set up looms and wove the cotton into cloth for warm clothes. This loom is in a cavate.

The Ancestral Pueblo people were hunters, gatherers, and farmers. For thousands of years they moved from place to place in small groups looking for plants to eat. They

Chris Judson

The three main crops of the Ancestral Pueblo people were corn, beans, and squash. What do you think your favorite food would be?

hunted deer, rabbits, and other wildlife. About a thousand years ago, they began to learn about farming. Their way of life changed. In the 1100s the Ancestral Pueblo people moved into Frijoles Canyon. By then they were skilled farmers and had experience in growing crops in such a dry area.

If they could, they lived near a river or stream. There they

could dig ditches to bring water to their gardens, or use pottery jars to carry water to the plants. But there aren't very many rivers and streams. There wasn't enough space for everyone to make gardens there. In many places water only came from summer rains and winter snows. The mesa tops in Bandelier were like that. Often they would plant gardens in many different places. Some places would be good in dry years. Some places would be good in wet years. That way some food would grow every year.

For food they grew corn, beans, and squash. This was a very good combination. To be strong, and to grow, you need to eat protein. Meat has a lot of protein. But the people didn't have much meat to eat. If you eat corn and beans together they give you protein. Squash also has good vitamins.

Besides growing food in their gardens, people around Bandelier

also grew cotton. They spun the cotton fibers into thread. Then they used looms to weave the thread into cloth for make clothes and blankets.

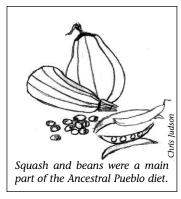
They were good farmers. But some years are just too dry for gardens to grow. People need food every year. So in good years they stored as much food as possible. They didn't have refrigerators or freezers. There weren't any metal cans or glass jars. To store food, the people dried it in the sun. Dry corn and beans will keep for years. Women cut the squash in long strips and hung the strips to dry. They gathered and dried edible plants. Meat was cut into thin pieces to dry into jerky. All the dry food was put in storerooms. The rooms had no windows. The walls were plastered with mud. That way no bugs or mice could get in and eat their food. Then they knew they would have food even in hard times.

At Thanksgiving you see bright-colored corn with hard kernels. People call it "Indian corn". That is the kind of corn the Ancestral Pueblo (continued)





Making a Living (Continued)



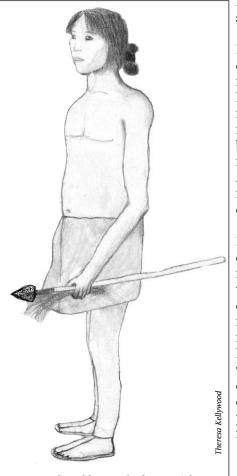
people grew. In those days ears of corn were smaller than now. When they were full grown, the people dried and stored them. To make food for their families, the women rubbed the cobs together. That made the kernels come off. They used two stones to grind the kernels into corn meal. Now we often call those stones by their Spanish names. The flat stone is called a metate. The stone you hold in your hand is called a mano. The women put the corn meal into stew or used it to make mush. They made thin corn cakes and other good foods. The beans were the brown-and-white kind. When you boil them a long time they are tasty and nutritious. To use the squash they cut the dried strips into small pieces. Then they put the pieces into boiling soup or stew.

Today, farmers often have lots of animals around. For Ancestral Pueblo farmers the only domestic animals were dogs and turkeys. They didn't have horses, cows, sheep, or chickens. All those animals came later with the Spanish. Probably the dogs were pets and for hunting. You might think the turkeys were to eat. But mostly they were important for their feathers. The long, hard wing feathers went on arrows and dance clothing. The people twisted the soft, small

feathers with yucca-fiber string. Then they wove the fuzzy string into warm turkey-feather blankets.

Hunting was also important. Hunters used bows and arrows, snares, and rabbit sticks. They hunted animals including rabbits, deer, and elk. Pueblo hunters know that hunting is very special. They know that a hunter must be respectful. He must not waste any part of the animal. The meat was used for food and the skin for leather or fur. The brains were good for tanning the hide. The bones were made into tools. Sinew made strong thread for sewing. Antlers were used for making arrowheads and deer hooves for rattles. The people knew many other ways to use parts of animals. Hunters respected the animals.

Pueblo people have always known that their lives depend on water. They need snow to come in winter. When it melts in spring, seeds can sprout. They need the rain in the summer. Then crops and wild plants can grow. People and animals will have food. They believe that everyone must stay in harmony with all living things. Everyone must be in harmony with the spirits. Then people will have good lives. Pueblo people show their respect in the way they live every day. They have special dances, prayers, and songs. The ceremonies ask for rain, healthy families, and long life. Farming isn't just about picking the right place to plant. Pueblo people know that the way they live is just as important.



Ancestral Pueblo men had many jobs. They were farmers, hunters, tool makers, and weavers. Some were also traders, traveling to different places to trade for things like feathers, cotton, or even copper bells!

Using Native Plants



People have lived around Bandelier for more than ten thousand years. One reason they survived is because they knew so much about using native plants. They used native plants for food, clothing, tools, medicines and dyes. Knowledge was passed on generation after generation. Parents taught their children, who taught their children. Everyone respected the elders who knew the most about using plants. Survival depended on knowing how plants could be used.

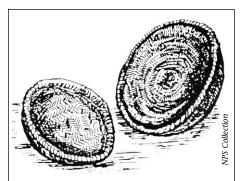
Different plants grow in different environments. Plants must have certain things to survive.

archeologist finds it. The archeologist studies the sandal. She finds out what plants people used. She finds out how sandals were made. If she keeps looking, she may find out other ways they used the yucca plant. She may find out that different people used plants for different things. She can also learn about the old ways from Pueblo people today.

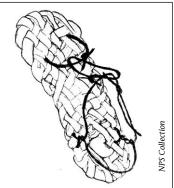
Now, Pueblo people use yucca roots for soap. They use the flowers and fruit for food. They make string, baskets, and paintbrushes from the tough leaves. Probably people long ago used yucca in the same ways.



To the Ancestral Pueblo people, the yucca was like a minigrocery store. Today, it is the New Mexico state flower.



Yucca Baskets were used to carry many things including crops, plants and even water! Ancestral Pueblo people used sap from the pine trees to fill the holes and then had a container that could carry water.



Can you imagine what it would feel like to wear yucca sandals? These were the shoes worn by Ancestral Pueblo people every day.

They need the right amount of water. They need the right amount of sunshine. They need the right kind of soil. A plant that needs a lot of water might live by a stream. One that is stronger could live in a canyon or arroyo where there is only water now and then. Plants that need lots of sunshine and not much water can live in open, dry places. Mesa tops are like that. Over hundreds of years the ancient people learned all about plants. They learned where to find the kinds they wanted to use. They learned when they bloomed, when they had berries, and they learned how get there before wild animals ate everything. Ancestral Pueblo people knew as much about plants as some modern scientists do.

Would you believe you can learn about plants from middens? Middens are places that people throw away things that they do not need any more. Archeologists get a lot of information from studying middens. Maybe someone made a yucca sandal. Later it wore out and they threw it away. Hundreds of years later an

Maybe you are hungry. You can eat berries from one-seed junipers. They don't taste very good, but they might help people have enough food in hard times. Something with much better flavor comes from the piñon tree. Piñon nuts are tasty and give you lots of energy. Piñon nuts had more calories than anything the people grew. You could use piñon sap on the inside of a basket to keep water from leaking out. The wood is good firewood. You could even chew piñon sap like qum.

Another very useful tree is the Ponderosa pine. They are tall and straight. The bark of the Ponderosa smells like vanilla. The Ancestral Pueblo people used Ponderosa for beams to hold up their roofs and to make ladders. They explored all the possible ways to use plants.

The Ancestral Pueblo people grew most of their food in their gardens. They planted corn, beans and squash. However, native plants were still very important to them. They helped them (continued)

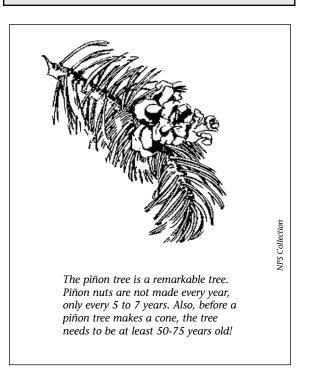


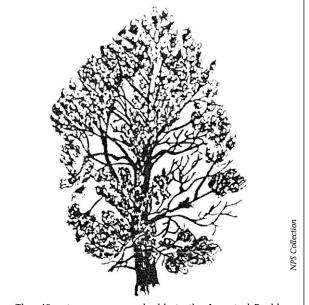
Using Native Plants (Continued)

have a healthier diet. If not enough food grew in their gardens, they still had native plants. When someone was sick, they knew the plants to use for medicine.

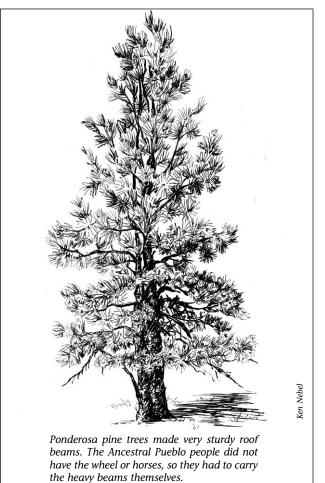
The elders today still teach children the knowledge of their ancestors. Children learn the importance of native plants. They learn how to use them. And they learn to respect them.

How did they use other plants? Imagine that you are an Ancestral Pueblo parent. Your baby has a wet bottom, just like babies now. But you can't buy diapers. What do you do? Ancestral Pueblo mothers got their diapers from trees! Juniper bark is "shreddy." That means it comes off the tree in long strips. If you pound it with a rock it gets soft. It will soak up water. It makes a great diaper!



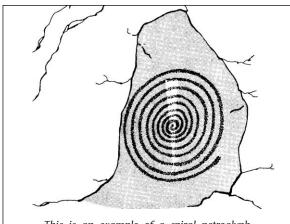


The piñon tree was very valuable to the Ancestral Pueblo people. When the piñon nuts were in season, the people harvested them. The nuts are filled with protein and fat. A pound of piñon nuts has about 5,000 calories!



Drawing Thoughts





This is an example of a spiral petroglyph. Spirals are very common.

umans have always wanted to write or draw special things. Drawings may show things that happened. They may show someone's ideas. They may show ceremonies. Now we write about things using words. But most early people in America didn't have alphabets. They used drawings to show their thoughts.

Here in the Southwest there have been many groups of Native Americans. Different groups make different kinds of drawings. Every one was important to the person who made it. Every one is important to Native Americans now.

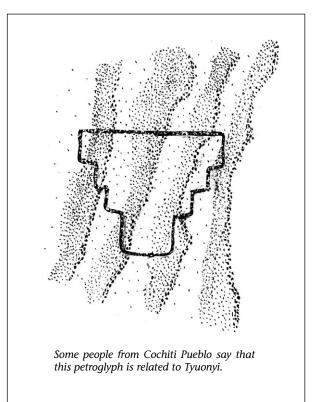
The word "petroglyph" is from two old words. In Greek, petro means rock. Glyph means something that is carved or engraved. Petroglyphs are designs that people make by pecking, grinding, incising, or scratching. You can see petroglyphs on rocks, boulders, and canyon walls.

A pictograph is a drawing painted onto rocks. Ancient people made them with colors made from dirt and clay. Pictographs are very fragile. Most of them washed away centuries ago. Almost all of them you see today are in places protected from the weather.

Petroglyphs and pictographs are not graffiti. Graffiti is writing or drawing that someone makes without permission. Usually it even damages something. When an ancient person made a petroglyph or pictograph, probably it was special and important to everyone.



One of the many petroglyphs at Long House may show a macaw. Ancestral Pueblo people traded obsidian and other things for brightly-colored macaw feathers.





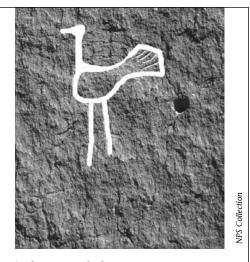
Drawing Thoughts (Continued)



Artist depiction of plumed water serpeant pictograph in a cavate in Bandelier. It is more than three feet long! Pictographs are designs that are painted on the rock. Pictographs are rare because they erode away more quickly than petroglyphs.

When you walk on the main loop trail at Bandelier you can see petroglyphs and pictographs. They were made by the Ancestral Pueblo people. Frijoles Canyon was their home for centuries. What do the pictures mean? Many symbols are familiar to Pueblo people today. But unless you can talk to the person who made it, you will never really know why they put it there.

At Bandelier National Monument visitors enjoy finding petroglyphs and pictographs. If you visit you may see lots of symbols. There are things that look like animals, suns, spirals, and people. There are plumed water serpents and birds. They are beautiful and very fragile. We want them to last a long time. So everyone needs to protect them. We need to remember that they are important. We need to be respectful. Please don't get too close to them. Don't touch them because little by little they will wear away. Remember that rock won't grow back! They were made by ancestral hands hundreds of years ago. You will be glad that you helped preserve them.



Turkey petroglyph at Long House. Ancestral Pueblo used turkey feathers to weave blankets.

We do not know what the Ancestral Pueblo people were saying with their pictographs and petroglyphs.

Ieannie Hope Gibson

Besides making drawings, they also spoke to each other. Probably present day Pueblo people are still using many of the words they used so long ago. The Pueblos who are most closely related to Bandelier speak three languages: Keres, Tewa, and Zuni.

Here are some words from those languages:

Water	Food
vvatti	1 000

Tewa: p'o Tewa: hoo-gee

Keres: tsehts Keres:

Zuni: k'ah way ooh-peh-wah

Zuni:

Corn he shod an ne

Tewa: k'hun

Keres: yahk
Zuni: doe wa
Tewa: pe'ing

Keres: meetz

Home Zuni:

Tewa: te-wha hayi k'ha choe

Keres: sah mah

Zuni:

de yat chi nan ne



Cooking with Clay



The pottery made by Pueblo people is beautiful to look at. It also tells us a lot about those who made it. Each pot tells a story.

People in the Southwest moved from place to place for many reasons. After many years they started living in permanent villages. That was when they started using pottery. People in Central America and Mexico had known how to make pottery for a long time. Probably the methods for making pottery moved north. Pottery was ideal for storing the corn and beans they harvested. It kept animals out and lasted for a long time.

The first pieces made were very basic and are often called plainware. These were simple brown or grey bowls. Over time, Pueblo people became experienced potters. They began to polish the pot's surface. Potters created new shapes and sizes of pots. They made cooking

pots, bowls, storage jars, and serving bowls.
There were ladles (or scoops), mugs, and figurines. They painted designs on some pieces.

Pots used for cooking are "corrugated." That means they have bumps and ridges where the potter pinched the wet clay between her fingers. Often they have burn marks on the outside, from being used over a fire. Potters didn't put painted designs on cooking pots. Most pottery from early times was unpainted cooking ware.

Later, some people began painting interesting designs on bowls and jars. These pieces were used for eating, drinking, or serving food. An early style is Black-on-White. Potters put a thin layer of white clay all over the pot. Thin clay is called slip. Then they made drawings on it with black paint. The designs were simple but beautiful. Today some potters still do Black-on-White designs. It has been done for 1,400 years.

Some potters put red slip on their pieces. Then they added intricate designs of red, white and black. Designs were mostly geometric. Some represented clouds, rain, and lightning. Others showed arrows, steps, and feathers. A few were drawings of animals. Some potters along the Rio Grande River in New Mexico made a special paint called glaze. It melts a little when the pot is fired, and comes out shiny. Today glaze is often used to cover a whole piece. Then it was only used to make designs.

People in different times and places made different styles and kinds of designs. There were many different groups of Ancestral Pueblo people. Each group had its own designs and ways to make pottery. If you look very carefully at a pot you can tell which Ancestral Pueblo group made it. You can tell how long ago. This information is extremely important to archeologists. They are trying to figure out the whole story of the Southwest. Today, different pueblos still have their own ways to shape and decorate pots.

Many potters use designs that they find on pots made by their ancestors. Like in the old days, you can tell which pueblo a pot is from just by looking at its design.

Pottery is still made the way it was made long ago.
Potters gather clay to make the pots. They gather minerals or plants to make the paints. Potters chew on yucca leaves to make paint brushes. Potters mix just the right amount of clay and water. They pull the clay out into long thick strips. They coil the strips around and around to build the

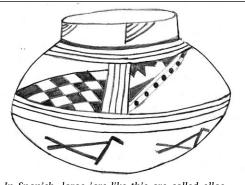
body of the pot. The potter then pinches the coils together so the pot won't fall apart. They scrape the pot inside and out to make the surface smooth. They let it dry slowly, and sand it. Then they decorate it.



Corrugated Pottery, one of the earliest kinds, was mostly used for cooking.



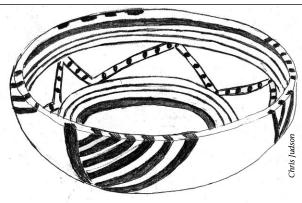
Cooking with Clay (Continued)



In Spanish, large jars like this are called ollas (oy-yahs). They were often used for carrying water and storing food. The drawing is a Bandelier Black-on-Gray pot. It was made between 1400-1550.

Last they fire it to make it strong and hard. To do the firing, potters take the pots outside. They carefully and skillfully surround them with wood or something else that will burn. They want to make a very hot fire. When it is burning they leave the pots in until they know they are done. Some groups leave them for an hour. Some groups take more time, some less.

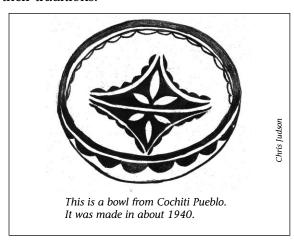
When the Spanish came to the Southwest they noted that women were making most pottery. Today in many pueblos there are both men and women who are excellent potters. In some pueblos, women make the pots and men paint them. Sometimes other combinations of people help each other.

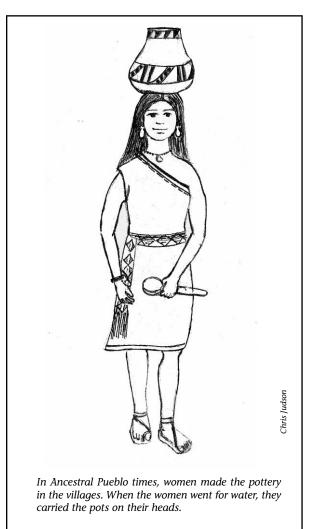


Pottery with painted designs was usually used for serving and storing food. This is a drawing of a Bandelier Black-on-Grey bowl made between 1400-1550.

Pottery was surely important in the lives of the Ancestral Pueblo people. They used it to collect and carry water and store crops. They used it to cook and serve food. Archeologists find that

many pueblos traded pots. So we know it was important for trade. Pottery is still important to Pueblo people of today. For some it is an important way to make a living. For all Pueblo people it holds thousands of years of their traditions.







Maria Martinez





Julian and Maria Martinez were an amazing team. Maria made the pottery and Julian painted designs on the pots. Together they made very beautiful Pueblo pottery for the world!

aria Martinez was a potter from San Ildefonso Pueblo. That is only about 20 miles from Bandelier. In 1908, her husband Julian was working for Dr. Edgar Lee Hewett, an archeologist. Julian was digging in the Ancestral Pueblo houses in Frijoles Canyon. Dr. Hewett found some of the old pottery. He asked Maria and Julian to

"I am happy because I know that pottery will not die. My great-grandmother, Maria, taught me and now I teach my grandchildren."

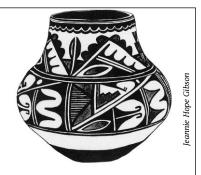
~Eveyln Naranjo, San Ildefonso

stone. That made it shiny. Then Julian painted designs on it. For paint he usually used slip. He painted designs with slip on the polished surface of a pot. The lines would show because they were matte (not shiny). Polychrome pots were cream-colored. He painted them with designs in red and black.

make copies of it. He liked the pots they made.



This pot was made by Tony Da, Maria's son. It was made in the 1970s. The design is the Awanyu, or the water serpent.



This polychrome pot is red, black, and cream. Maria Martinez and her son Popovi Da created it in 1960.



This pot was made by Maria Martinez and Popovi Da in the 1960s. The feather design is black-on-black.

Later he helped them start selling their pots to people outside of their village. Before that, most potters just made pieces for their own family or other people they knew. Selling pottery to tourists gave Maria and other potters a new way to earn money. That helped their families and their whole community.

Maria and Julian became very famous for beautiful black pottery with black designs. It is called black-on-black. And they made other kinds too. They made red and polychrome. Polychrome means it has more than two colors.

Maria and Julian worked together. Maria shaped the clay into beautiful pots. She let the pot get dry. Then she sanded it until it was very smooth. She painted slip all over the pot. Slip is clay with lots of water. Her sister Clara helped her polish the pot carefully with a smooth

When a piece was finished, it had to be fired. Firing makes it hard and strong. Maria and Julian took the pots outside. They carefully built a fire around them. Julian figured out a way to make red pots come out black. He covered the fire with dry, powdered horse manure. That made the pots change color.

For many years Maria and Julian worked together to make beautiful black-on-black pottery designs. Julian passed away in 1943. Then Santana, the wife of their son Adam, helped Maria. Later their son Popovi Da (poh-POH-vee DAY) made the designs. He also made beautiful pots of his own. Maria Martinez was always willing to teach others how to work with clay. She passed away in 1980. To this day her family and many other Pueblo people make beautiful, traditional pottery.



Pablita Velarde



This is "Old Father Storyteller", by Pablita Velarde. Pablita wrote a book of Pueblo stories her father told her as a young girl. This is on the cover of her book.

Pablita Velarde came from Santa Clara Pueblo. She worked at Bandelier in the 1940s. People know her for her wonderful paintings. They also know her because she was a pioneer. She opened the way for other women artists.

Pablita went to St. Catherine's School in Santa Fe. Then she finished high school at the Santa Fe Indian School. There, she took art classes with Dorothy Dunn. She found out she was good at painting. Ms. Dunn encouraged Pablita in her artwork. In those days most Pueblo people didn't think women should be painters. They thought women should just cook and raise children.

Pablita did pursue her dream to become a full-time painter. It was not an easy road. But after she finished school in Santa Fe, she got a good job. Bandelier National Monument was making a new museum. They hired Pablita to paint Pueblo scenes. She wanted park visitors to learn about her people. She was very careful to

make sure every detail in the paintings was right. At that time she worked with casein (kay-SEEN). That is a kind of paint that is based on milk.

Later she started making what she called "earth paintings." She made the paint from colored dirt, glue, and water. Over her lifetime she became famous for her art. She also wrote and made the pictures for a book of legends her father told when she was young. It is called "Old Father the Storyteller."



This is an example of a painting by Pablita Velarde. She painted it in the 1940s. It is a men's dance with dancers representing buffalo, deer, and antelope. The dance is usually done in the winter.

Pablita lived in Albuquerque for a long time. She passed away in 2005 when she was in her eighties.

Pablita opened the door for Pueblo women to be artists. If they have artistic talent, they can follow their dreams. This is even true in her own family. Her daughter Helen Hardin was a very famous painter. Sadly, she has passed away. Helen's daughter Margarete paints and



Along with painting, Pablita Velarde also made Pueblo dolls.

makes pottery. Pablita's son Herbert is an artist too. He is a sculptor.

Pablita was very famous. She received many awards. And she made a legacy of stories in pictures. Her pictures tell of Pueblo life from an inside eye.

